SMALL GROUPS AND THE PREDICTION OF BEHAVIOR

by

Fred Massarik
Associate Professor of Behavioral Science
and Director, Doctoral Studies

NASA Research Paper No. 22

Graduate School of Business Administration

UCLA

September 1967

SMALL GROUPS AND THE PREDICTION
OF BEHAVIOR

Of course we predict behavior. We do so in small groups, in

organizations, in communities and in society at large. We do so

every day of our lives, in our roles as scholars and as managers,

and indeed in all roles that we play, by choice or by force of

circumstance.

Given the lament, oft-repeated and half-believed, about the fickleness

of human nature, it may seem a miracle that so often we succeed in our

predictions. Still, we live with a gnawing feeling that we should be

doing better - and indeed we should. The point is that we are <u>rarely</u>

articulate about <u>what</u> we do when we attempt to forecast interpersonal

behavior. Some vacillate between excess feelings of certainty, ("I

can read'm like a book"), to a sense of despair, ("I quit....I can't

tell from minute to minute what he's going to do"). And others, fearing

the fate of the centipede who when asked to point to the leg with which

he takes the first step finds himself paralyzed, decline to be analytical

about the predictive task. This paper seeks to make explicit some aspects

of small groups and the prediction of behavior. Specifically, it concerns

itself (1) with the major modes of interpersonal prediction, (2) with

managerial style in the prediction process and (3) with an integrative

mode as an educational approach to improve interpersonal predictive outcomes.

(1) The Major Modes of Interpersonal Prediction

Given: A person in a small group. He may be the chairman of a

committee, a member of a project team, a supervisor meeting with his sub-

ordinates. His task: to predict salient aspects of the behavior of the

small group and of its members. What modes are available to make possible

performance of this ubiquitous task?

(1.1) Experiential Prediction

Banal or not, it is true that one learns by experience. Prediction of interpersonal behavior necessarily assumes some underlying process of learning, most typically by direct experiencing of the ordinary situations of daily life. What we learn in this manner is implicitly generalized, and sets the stage for ordering, and predicting, further interpersonal events. This chain reaction of experiencing - learning - predicting is complex and hazardous. We can, however, note briefly two principal sub-processes, socialization and personalizations, that are fundamental to its operation:

(1.11) Socialization

The process of socialization, broadly viewed, proceeds at two complementary levels: (a) by establishing relatively stable models of social behavior, such as roles, norms, standards and bureaucratic prescriptions, and (b) by creating a continuous stream of learning experiences, formal and informal, by which the individual comes to make these models part of his personal repetoire of understanding and action. [1] The person learns to identify, consciously and unconsciously, regularities of social behavior. In turn, he learns to behave in ways that will be predictable to others.

Examples of this process, and technical writings dealing with it, are ample. [2] Illustrations can be drawn from elemental processes of child-rearing to sophisticated procedures of explicit

or implicit initiation into one or another group or formal organization. They share in common the relative reduction in the range of perceptions that a person appropriately is to have of others, and a similar restriction of behaviors that are deemed appropriate for him under a particular set of circumstances.

(1.12) Personalization

Additionally, the process of personalization unfolds as an important strand in the interpersonal prediction process. While socialization is concerned principally with the establishment of consistent patterns in accordance with some general, prescriptive models, e.g., father roles, supervisor roles, roles related to division of labor or task assignment, etc., personalization focuses on the pecularities and idiosyncratic elements in each unique relationship.[3] It is not enough to know what bosses in general do; it is necessary for me to be cognizant of the particular ways in which the behavior of my boss differs from some normative expectation. Of course, typically I will make no conscious effort to "pull apart" by conceptual acrobatics those elements in my boss'behavior that I attribute to his performance of a general role and those that I regard as unique manifestations of his personality. I respond to him as a total person. But in doing so, I come to be aware that there are some cues - nuances of his gestures, modes of speech when under pressure - when listening - when bored, his facial expressions..... that reflect his special blend of dealing with others and with his own feelings. Again, as in socialization, much of my response to these individualized cues is learned. The evidence is not clear

whether this learning takes place in the context of some native propensities for such learning. At any rate, it is evident that people do differ in the extent to which they succeed in picking up these personalized cues and in the manner in which they make use of this information in predicting the behavior of others with whom they associate. An extensive literature in the area of social perception concerns itself with this issue.[4]

(1.13) Experiential Prediction in the Small Group

Our comments above have said little about prediction in the small group per se, but have focused on the two person relationship between an "observer" who seeks to predict and an individual "subject" whose behavior is predicted. Predicting behavior of the small group is, if anything, more complicated than prediction either of the behavior of a single other individual or of a large social organization, particularly one that is more or less homogeneous. In the former case, the relationship, at least theoretically, permits concentrated attention to a relatively delimited social situation. In the latter, there may be some safety in the law of large numbers and in the operation of aggregate statistical processes. But in the small group, the task of experiential prediction requires both the capacity for synoptic overview of emerging aspects of group functioning, and a selective attention to individual behaviors that are at the root of interpersonal interaction in the group setting.

Here, the hazard of the ping-pong phenomenon is ever present. The observer may find himself caught up in paying exclusive attention to a particular obvious "volley" or exchange of communication among two group members. His attention may shift from one "player" to another much as that of someone who is watching a ping-pong game.

In doing so, he may lose a synoptic sense of the responses of the group as whole, and of other key individuals whose behavior subsequently is crucial for prediction. The more complex alternative requires a simultaneous awareness of the total pattern of group activity, and a capacity for responding to strategic sub-sets of interactions, which - alas - often are not the obvious ones.

The processes of socialization and personalization operate in the small group context, in a manner largely analogous to their operation in the two-person relationship.[5] Socialization is manifest, for instance, by the spontaneous or rationally planned crystallization of a task assignment and role structure. Personalization appears in unique group processes, the "special little interpersonal games that groups play". For example, there is the significance of noise levels: some groups are relatively silent when things go badly, others, under similar conditions, shift to a state of uproar. The observer learns to "read" the meaning of a given cue, such as noise level, and to interpret it as basis for experiential prediction. Whether or not he succeeds, he faces inevitably the challenge of responding to a _Gestalt_ of data, notably derived from processes of socialization and personalization, rather than to some mechanical collation of unrelated fragments of behavior.

(1.2) Normative Prediction

Prediction of small group behavior may be based on a conscientious effort to follow a set of rules or exhortations: "to tell what's going on, watch for X, but don't pay any attention to Y." Perhaps the best known example is the Dale Carnegie approach, but there are innumerable other illustrations, that for $5.95 and in Twelve

Easy Chapters will provide handy guides for prediction, including forecasts of group behavior.[7]

In another context, normative models and mathematical decision theory offer promise for improving accuracy of prediction. At present, no such set of normative models is available for the prediction of group behavior, although various efforts in this direction are under way.[8] The simulation of group process, experimentally and through computer methods, now of lively concern to a number of scholars may at some future time provide significant guidelines for the improvement of prediction of what happens in small groups.

(1.3) Research Prediction

Prediction of small group behavior may be based on specific empirical research, generally in the fields of social psychology and sociology often under the explicit heading of group dynamics.[9] Here, we deal with studies designed with varying degrees of sophistication and variously complex, that explore interrelations, typically among a small number of variables. The approach normally is hypothetico-deductive. Hypotheses are formulated, dependent and independent variables are operationally defined, controlled conditions are set up in laboratory or, less frequently, in natural settings, and conclusions are drawn at specified probability levels.

The conceptual model guiding research prediction intentionally defines an artificial world. It conceives of small group behavior as analyzable in terms of a set of relatively separate and distinguishable dimensions. These dimensions (variables, attributes, etc.) are presumed to exist also in that other "real" world, outside of

laboratory or controlled natural setting. However, in
the research as reported, the forecasting functions are
confined to the assumption that the artificial, laboratory conditions
can be replicated, and that the probability of re-occurrence of
certain events under laboratory conditions can be stated. The
meaning of such laboratory findings for the real world of small
group activity remains tantalizing but conjectural.

Of late, mounting dissatisfaction has been evidenced with
the usual methods for making predictive statements, even under
experimental constraints and in small group laboratory. The
uncritical subservience to the .05 level (or any other
monolithic level) of statistical significance is widely
questioned, and Bayesian notions of probability inference
increasingly are being proposed. [10]

Whatever the method for judging the potential predictive
power of research findings, it is clear that the results
of the laboratory, at best, currently provide hints rather
than full-blown normative prescriptions for the observer
who wishes to make a particular forecast of small group behavior.

Let us consider an example from A. Paul Hare's Handbook
of Small Group Research.[11] He cites the conclusion, based
on certain studies, that "The leader in the group of five
will have more influence on the group decision than the leader
in the group of twelve."[12] Further thought quickly suggests
that a hugh ceteris paribus lurks in the background: many
other conditions are assumed to be equal...but they may not be....

is the "leader" charismatic or colorless?....is the issue emotionally
involving or routine?.....is the leader's influence exerted under
pressures of time or at some leisure?....and what kinds of people
are those other group members who are to respond to the leader's
influence? Somehow, the observer in the real life situation must
answer questions as these in some manner if he is to draw any
lesson whatever from the experimental finding. Or he may throw
up his hands helplessly and resign himself to the feeling that
those researchers have not helped him a lot in solving his problems.

(2) Managerial Style in the Prediction Process

The mode of experiential prediction, in its broadest sense,
is inevitable. It simply represents a way for dealing with the
interpersonal events of the world almost independent of any decision
a manager (or anyone else) may make to use it or not to use it.
Simply, we cannot avoid - virtually as an autonomous function
of living - to be involved in the processes of socialization and
personalization. Necessarily, we draw some predictive conclusions,
whether right or wrong, on the basis of these streams of social
events.

But it is true that some mangers, and researchers, adopt
different emphases of predictive style among the experiential,
hortatory and research modes.

(2.1) The Parallel Modes

Let us consider the example of the well-motivated but naive
manager. Day by day he makes the usual experiential predictions,
at whatever level of success. He lives, he watches what goes
on in the groups about him and he acts. But on some occasions,

he recalls what he has read recently in a book on recommended
management practices. He responds to certain suggestions
made by the author, in accordance with the normative mode of
prediction. These may or may not fit the requirements of the
prevailing real-world situation. His prediction may fail, or
by sheer accident, succeed. In the latter case,he will consider
the author's exhortation validated, and act on it again in the
future. (Who knows, he may be lucky again....?) Clearly, he is
taking considerable chances by using undigested, normative prescription
mechanically, as a separate, unrelated input. Similar parallel,
uncoordinated use of scientific findings, as drawn, often in overly
simplistic fashion, from the mode of research prediction, may not
be much more helpful than reliance on doubtfully-valid hortatory
instruction.

(2.2) The Separatist Modes

There are some approaches to prediction that represent virtual
caricatures of actual circumstance. We can conceive of a manager -
a kind of Managerial Automaton - who relies almost entirely on
normative prediction. He cannot avoid the experiential mode completely,
even were he to try, but he may make every effort to act largely
"by the book". At the present state of knowledge, "the book"
may not be as helpful as he'd like it to be...whether it be The Power
of Having Groups Do Exactly What You Want Them To Do (J. Charlatan,
Nonsense Publications, 1969), or a rudimentary set of propositions
drawn from research.

A similar sub-species is the research scientist - a
sort of Scientific Automaton - who, in his daily activities,
attempts mechanically to apply a selected melange of experimental
findings as basis for small group prediction, to the relative
exclusion of other data.

But, one may venture, not much more successful in the
predictive task may be the manager, or scholar, who relies
entirely on undiluted personal experience - a kind of Extreme
Personalist - who rejects all second-hand, non-experienced
inputs. His schema may be: "the only things you can trust
are the ones you learn in the School of Hard Knocks", and
"if it hasn't happened to me, it hasn't happened." Some old
time managers were of this variety, certain Hollywood movie
moguls, for instance. Indeed, often they may have succeeded,
as measured by some criteria, but their failures as judged by
other yardsticks are legion. Most of us probably would agree
that they are not the model we would propose for the contemporary
professional manager.

(3) The Integrative Mode as an Educational Approach

What kind of model, then, would make sense to guide
the manager in his efforts to predict, practically and effectively,
the behavior of small groups? Essentially, it would seem that
experiential prediction must be enriched and expanded by
integrating within it appropriate data derived from normative
and research prediction.[13]

The manager, of course, continues to make predictions about
small groups on the basis of his experience. But the learning
process affecting his experience ideally must reach beyond the
conventional confines of expanding his intellectual knowledge
and beyond the vicarious learnings of case study. Reading books
on group dynamics is not enough; studying the Journal of Personality
and Social Psychology, Behavioral Science, the Administrative
Science, Science Quarterly and the Harvard Business Review is
not enough. Even through discussion of cases, relevant to small
group behavior is not enough. And, for that matter, sensitivity
training is not enough.

What may be needed are learning/teaching models going beyond
those now generally employed. Their characteristics and pre-conditions
may be briefly summarized, but their detailed design is a task far
beyond the boundaries of this paper.

The suggested educational approaches would be based on research
procedures that more fully take into account the genuine complexity
of small group behavior. Instead of following two or three variable
designs, with everything else presumably held constant, they
would address themselves to conceptually-rich, socially relevant,
multivariate problems. Instead of pursuing neat, billiard-ball
cause and effect relations, they would grant multiple causation,
and examine in depth, quantitatively and qualitatively, the interplay
among the many forces that make real-life small group behavior
both frustrating and exciting.[14]

By progress in the simulation of small group behavior and
by skilled use of computer techniques, integrating in turn substantive
findings drawn from the more realistic, multivariate research
approaches noted above, it may be possible to devise more powerful
normative schemas. Hopefully, these would provide guidelines
that would be a far cry from the often naive, overly-dogmatic
prescriptions presented in the popular literature, and that would
be more powerful than the limited aids currently available through
systematic research.[15].

With a raised level of research and normative findings,
a basis would be established for more effective integration of
fact and prescription in the framework of the experiential learning.
For example, it becomes possible to design educational experiences
that provide a constant interplay among experiential research
and normative learnings.[16]

Experience remains the keystone. It constitutes the essential
setting within which intellectual knowledge is made meaningful.
Intensive exposure to research and normative findings may be
intertwined, with concrete experience providing a continuing
cross-check between real-life events and the knowledge of the
Academy - an old concept but all too rare in practice.

Direct confrontation among participants in small groups
continues to be an important method for bringing about this systematic
linking of conceptual and directly experienced learning. The
small group whose behavior we seek to predict also provides the

environment par excellence for focusing knowledge and observation of small group behavior. It constitutes a flexible, manageable learning situation within which direct confrontation can occur, interpersonal responses can be explored, and resources shared. As research evidence suggests, under specified conditions it serves to improve decision quality. It is no cure all, but it does remain a crucially significant concern for the practicing manager -- as a phenomenon that needs to be understood and predicted and as an educational method by which more may be learned about human behavior in its infinite and frequently perplexing variety.

FOOTNOTES

1 The literature on the socialization process is extensive. Much of it focuses on development of behavior patterns and perceptual responses in childhood, but in some form socialization continues throughout adult experience. For some illustrative references see Whiting, John M., in Francis L.K. Hsu (ed.), Psychological Anthropology, Homewood, Illinois: Dorsey Press, 1961; Whiting, John M.W. and I.L. Child, Child Training and Personality, New Haven: Yale University Press, 1963; Piaget, J., The Language and Thought of the Child, New York: Harcourt Brace, 1926, and Parsons Talcott and R F. Bales, Family, Socialization and Interaction, Glencoe, Illinois: Free Press, 1955.

2. For example, see Young, Frank W., Initiation Ceremonies: A Cross-Cultural Study of Status Dramatization, New York: Bobbs-Merrill, 1965, and Firth, Raymond, We, the Tikopia, New York: American Book Company, 1936. Fighting the neighborhood bully or joining the company bowling league are other instances of establishing an "in" position within a particular community or organization. Being "in" then generates a constellation of interpersonal behaviors which, to the person behaving and to those who relate to him, become increasingly capable of mutual, accurate interpretation. The formal assumption of value prescriptions and specific responsibilities that flow from such prescriptions are among typical outcomes.

3. Garfinkel and Cicourel view interpersonal relationships
in a game-theoretic perspective, and call the unique aspects
of any given interpersonal "game" the "rules of preferred
play." These preferred rules proceed, of course, within
a broader framework of more "standard" rules, as identified
here with the socialization process. See Cicourel, Aaron
V , Method and Measurement in Sociology, New York: Free
Press, 1964, and Garfinkel, Harold, "A Conception of and
Experiments with "Trust"as a Condition of Stable Concerted
Action," Paper read at the Annual Meetings of the American
Sociological Association, Washington D.C., 1957.

4. Among the important works in this area, see Tagiuri,
Renato and Petrullo, Luigi, (eds.), Person Perception
and Interpersonal Behavior, Stanford, California: Stanford
University Press, 1958.

5. A strong case can be built holding that socialization
and personalization are generic processes, operating at
all levels, from dyadic relationship to small group, organization
and culture. At each level social events are determined
by an interplay of forces that delineate certain consistent
boundaries of what may occur; within these boundaries,
then, individualized and even idiosyncratic interactions
proceed.

6. The Gestalt position is classically stated in
Kohler, Wolfgang, Gestalt Psychology, New York, Horace
Liveright, 129, especially Chapter VI, "The Properties
of Organized Wholes," pp. 187-223.

7. To give one of many possible examples: Battista, O A ,
The Power to Influence People, Englewood Cliffs, New Jersey:
Prentice Hall, 1959. Some typical chapter headings: "For
a More Powerful Personality, Control the Emotions and Attitudes
of Others," "How to Put Human Nature on Your Payroll," "The
Ten Principles of Influencing and Dealing with People,"
(including "Speak Evil of No One, and "Think, Think, Think
That You Will be Successful in Your Dealings with People,"etc.).

8. Some recent examples of work in this area: Coleman,
James S., "Analysis of Social Structures and Simulation
of Social Processes with Electronic Computers," Educ. Psychol.
Measurement, 21, 1961, pp. 203-218: Gullahorn, John T.,
and Jeanne E. Gullahorn, "A Computer Experiment in Elementary
Social Behavior," IEEE Transactions on Systems Science
and Cybernetics, L 1 1965, pp. 45-51: and Hare, R. Paul,
"Computer Simulation of Interaction in Small Groups," Behavioral
Science, 6, 1961, pp. 261-265.

9. Perhaps best known in this area is Cartwright, Dorwin
and Alfred Zander, (eds.) Group Dynamics: Research and
Theory, Evanston, Illinois: Row, Peterson, 1953, (2nd
edition, 1960; revised edition in press.)

10. See Bakan, David, "The Test of Significance in
Psychological Research." Psychol. Bulletin, 66, (6), December 1966,
pp. 423-437.

11. Hare, A. Paul, Handbook of Small Group Research,
New York: The Free Press of Glencoe, 1962.

12. ibid., p. 239.

13. As specialists in experiential learning, as for instance in T-Group and sensitivity training are aware, it is difficult to link in meaningful manner, emotional and cognitive learning experiences. For some relevant considerations, see Miles, Matthew B., "The T Group and the Classroom," and Leland P. Bradford, "Membership and the Learning Process," in Bradford, Leland P., Jack R. Gibb and Kenneth D. Benne, T-Group Theory and Laboratory Method, New York: John Wiley and Sons, 1964, (pp. 452-476; 190-215). This issue arises regularly when T-group trainers attempt to relate "theory" about individual, group and organizational processes to the direct, living experiences in which participants are immediately involved in the T-group setting itself.

14. See Blalock, Hubert M., Jr., Causal Inferences in Nonexperimental Research, Chapel Hill, North Carolina: The University of North Carolina Press, 1964; and Bohm, David, Causality and Chance in Modern Physics, New York: Harper Torchbooks, 1961, (espec. pp. 16-20)

15. To move in this direction, it becomes necessary to close the gap between "hard-headed" researcher and mathematical model builder on one hand, and the qualitatively, clinically-oriented scholar and practitioner on the other. For some reflections on this issue, see Massarik, Fred, "Magic, Models, Man and the Cultures of Mathematics," in Massarik, Fred and Philburn Rotoosh, Mathematical Explorations in Behavioral Science, Homewood, Illinois: Richard D. Irwin and Dorsey Press, 1965, (pp.7/21).

16. Much needs to be said on this issue. Undoubtedly, a number of teaching/learning strategies may be considered. My own preference is the use of the small group as a prototype of other social systems, within which a wide variety of learning experiences may occur. These may be based on two-pwerson sub-group relationships, the total group focused both on intellectual and interpersonal processes. Infusions of research and normative knowledge would take place by external resources, such as lectures and readings, but would be explored inductively within the group, by exercises, tutorial relationships and total experiencing.